

**ESCHERICHIA COLI STRAIN SECRETING HUMAN GRANULOCYTE COLONY  
STIMULATING FACTOR(G-CSF)**

The present invention provides a recombinant plasmid vector comprising a kanamycin resistance gene, a promoter, an endoxylanase signal sequence, a nucleotide sequence coding for an oligopeptide consisting of 13 amino acids including 6 consecutive histidine residues, and a human granulocyte colony stimulating factor(hG-CSF) gene; an *E. coli* transformed with the said vector; and, a process for producing complete hG-CSF protein with high purity from the protein pool secreted by the said microorganism. In accordance with the invention, the hG-CSF protein can be prepared with high purity through rather simple process facilitating secretion of large amount of hG-CSF fusion protein into the periplasm, which does not require complicated processes such as solubilization and subsequent refolding required for isolation of the hG-CSF protein produced in cytoplasm as insoluble inclusion bodies by conventional techniques, thus, the hG-CSF protein can be widely used as an active ingredient in the development of supplementary agents for anticancer therapy.